<u>**Remarks**</u>

Entry of the amendments, reconsideration of the application, as amended, and allowance of all pending claims are respectfully requested. Claims 1, 3-4, 6-7, 9-33, 36-47 and 49-51 remain pending.

In the Office Action, dated May 4, 2007, claims 2, 5 and 8 are objected to as being of improper dependent form. Without acquiescing to this rejection, applicants have cancelled these claims in a bona fide attempt to further prosecution of this application. Therefore, applicants respectfully request withdrawal of the objections to claims 2, 5 and 8.

In addition to the above, claims 1, 2, 4, 5, 7, 8, 21, 47 and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (U.S. Patent No. 4,698,752) in view of Furlani et al. (U.S. Patent No. 5,995,998); claims 3, 6, 9, 10, 22, 23 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein in view of Furlani and further in view of Soltis et al. (U.S. Patent No. 6,493,804); claims 11-14, 24-27 and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein in view of Furlani and further in view of Soltis and Shaughnessy (U.S. Patent No. 5, 555,388); and claims 15-20, 28-33 and 41-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein in view of Furlani and further in view of Soltis and Annevelink (U.S. Patent N. 5,448,727). Applicants respectfully, but most strenuously, traverse these rejections for the reasons herein.

In one aspect, applicants' invention is directed to the efficient locking of resources of a global data repository. A locking facility is provided that enables concurrent access to a complex data structure, while minimizing the lock acquisition necessary to access a particular resource of that complex data structure. As one example, the complex data structure is a data repository that includes a plurality of resources (e.g., tables, directories). The repository has a hierarchical topology, and there are various relationships among the resources of the repository and the locks of the repository. As examples, the relationships of the resources include containment-based relationships and reference-based relationships.

The type of locking relationship that exists depends on the particular relationship between the resources. For example, if the relationship between the resources is a containment-based

relationship, then the locking acquisition is referred to as chained locking. On the other hand, if the relationship is a reference-based relationship, then the locking acquisition is referred to as a reference-based locking strategy.

To minimize the locking needed, the locking strategy selected for a particular resource depends on the relationship between the resource and at least one other resource. For example, in independent claim 1, applicants recite a method of managing the locking of resources of a data repository in which the method includes, for instance, determining whether a relationship between one resource and another resource of a data repository is a containment-based relationship or whether the relationship is a reference-based relationship, wherein the data repository comprises a hierarchical structure of a plurality of resources, the hierarchical structure comprising one or more resources having a reference-based relationship and one or more resources having a containment-based relationship; locking at least one resource of the one resource and the another resource using one type of locking strategy, in response to the determining indicating the relationship is a containment-based relationship; and locking at least one resource of the one resource and the another resource using another type of locking strategy, in response to the determining indicating the relationship is a reference-based relationship.

Thus, in one aspect of applicants' claimed invention, a determination is made as to whether the relationship between resources is a containment-based or a reference-based relationship. Then, in response to the determining indicating that the relationship is a containment-based relationship, at least one resource is locked using one type of locking strategy. Further, in response to the determining indicating the relationship is a reference-based relationship, at least one resource is locked using another type of locking strategy. This is not described, taught or suggested in Goldstein or Furlani, either alone or in combination.

While Goldstein describes database locking, there is no description, teaching or suggestion in Goldstein of determining whether a relationship between one resource and another resource is a containment-based relationship or a reference-based relationship, and then performing locking depending on that type of relationship. In particular, there is no description, teaching or suggestion in Goldstein of determining the type of relationship between resources, and then locking a resource using one type of locking strategy, in response to the determining indicating the relationship is a containment-based relationship, and locking a resource using

another type of locking strategy, in response to the determining indicating the relationship is a reference-based relationship. The failure of Goldstein to describe, teach or suggest this aspect of applicants' claimed invention is explicitly admitted in the Office Action, and therefore, Furlani is relied upon. However, Furlani does not overcome the deficiencies of Goldstein.

While Furlani describes a group lock and a reference lock, there is no description, teaching or suggestion in Furlani of determining the type of relationship between one resource and another resource, and if that relationship is a containment-based relationship, then using one type of locking strategy, and if that relationship is a reference-based relationship, then using another type of locking strategy. This is simply missing from Furlani. Furlani merely describes two locks, one of which is a lock of the links that interrelate the other locks. Like Goldstein, Furlani fails to describe, teach or suggest determining whether a relationship in a global data repository is a containment-based or reference-based relationship, and then selecting a locking strategy based on that determination.
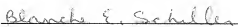
Since both Goldstein and Furlani fail to describe, teach or suggest at least applicants' claimed element of determining whether a relationship between one resource and another resource is a containment-based relationship or a reference-based relationship, and then locking a resource using one type of locking strategy in response to the determining indicating the relationship is a containment-based relationship, and locking the resource using another type of locking strategy in response to the determining indicating the relationship is a reference-based relationship, applicants respectfully submit that the combination also fails to describe, teach or suggest this aspect of applicants' claimed invention. Applicants respectfully submit that the mere mention of two types of locks is not a teaching of what is claimed by applicants. Applicants respectfully submit that there is no teaching in either of the references or in the combination of determining the type of relationship among the resources, and in particular, the types of relationships as recited by applicants, and then selecting a locking strategy based on that determination.

Based on the foregoing, applicants respectfully request an indication of allowability for independent claim 1, as well as the other independent claims. Further, the dependent claims are patentable for the same reasons as the independent claims, as well as for their own additional features.

Applicants respectfully submit that the other cited art does not overcome the deficiencies of Goldstein and Furlani, and therefore, applicants respectfully request an indication of allowability for all pending claims.

Should the Examiner wish to discuss this case with applicants' attorney, please contact applicants' attorney at the below listed number.

Respectfully submitted,

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